instance, the advantage in climate which Hyeres and Mentone enjoy over Marseilles is chiefly due to their being more sheltered from the mistral, or north-west wind, the scourge of the lower valley of the Rhone from Valence to Avignon. He went on to describe the climate of the Riviera, illustrating it by lantern slides from recent photographs, including views of Hyeres, Costabella, Cannes, Nice, Mentone, San Remo, etc., and he showed the three principal causes of the warm winter in this region to be: (1) the southern latitude; (2) the protection from cold winds by mountain ranges; and (3) the equalizing and warming influence of the Mediterranean Sea, which being practically tideless is always equally potent, not varying with hour and season. Dr. Williams mentioned the weak points of the south-of-France climate, with its blustering mistral, its occasional cold bise, its moist sirocco-wind; but summed up the Riviera winter climate as being, on the whole, clear, bright, and dry, with fog and mist practically unknown, with a winter temperature of 8° to 10° higher than England has, though subject to considerable nocturnal radiation, with about half the number of rainy days and four to five the number of bright ones which she can boast of, with cold winds and cold weather, without which it would lose its health-giving effect.

After the delivery of this address the meeting was adjourned in order to allow the fellows and their friends an opportunity to inspect the exhibition of instruments relating to climatology which had been arranged in the rooms of the Institution of Civil Engineers, 25 Great George Street. The Meteorological Office showed a set of instruments necessary for the equipment of a climatological station, viz., Stevenson thermometer-screen, fitted with dry-bulb, wet-bulb, maximum and minimum thermometers; and also a rain-gauge. Thermometers were also shown for ascertaining the temperatures on the ground, under the ground, and at a distance, as well as for recording temperature continuously. Various forms of sunshine recorders were exhibited, as well as a number of actinometers and solar radiation instruments for ascertaining the heating effect of the solar rays. The exhibition included a large and interesting collection of hygrometers, also several rain-gauges and other instruments. Among the curiosities is a piece of plate glass which was "starred" during a thunder-storm on Aug. 21, 1879; this was not broken, but it has a number of wavy, hair-like lines. The exhibition contains a large number beautiful photographs of clouds, lightning, and snow-scenes, as well as of the damage done by the destructive tornado at Lawrence, Mass., U.S.A.

NOTES AND NEWS.

ON April 16, at the Department of Archæology and Palæontology of the University of Pennsylvania, will take place the opening of the Loan Collection of Objects used in Worship, already referred to in these columns

— A very intense light, such as is required for photographic or occasionally for medical purposes, may, as is well known, be readily obtained by burning magnesium ribbon, which has, however, the disadvantage of being somewhat expensive. An excellent substitute, according to *Lancet*, has been found by a French chemist, M. Villon, in aluminium, which is about a third of the price of magnesium, and which may be utilized in the same manner by burning it in a spirit lamp, or, if a flame of much more intense brilliancy is required, in a coal, gas, or spirit flame supplied with a jet of oxygen. In these it burns without emitting fumes, in which respect it is superior to magnesium. The light given by aluminium has a high actinic power — nearly as high, indeed, as that of magnesium. The most convenient way of obtaining a very intense light, according to M. Villon, is to use a lamp provided with a jet of oxygen at the centre of its flame, into which powdered aluminium mixed with a quarter of its weight of lycopodium and a twentieth of its weight of nitrate of ammonium can be projected by means of a tube furnished with an air-ball. This gives an exceedingly intense light, without smoke. A mixture of aluminium powder with chlorate of potash and sugar can be ignited, giving an intense light by means of gun-cotton, but is somewhat dangerous. Probably the best plan for medical photography, or for laryngoscopic and auroscopic and other demonstrations, would be to burn a ribbon of aluminium in an ordinary spirit lamp. Of course, if oxygen and an oxy-hydrogen, or an oxy-alcoholic, lamp were at hand a much more intense light could be obtained.

— The London *Times* of March 24 printed the following communication from a correspondent: Under the direction of the Austrian Government an interesting series of deep-sea explorations has been conducted recently in the eastern parts of the Mediterranean, by a scientific party on board the "Pola." At one point, about 50 nautical miles south-west from Cape Matapan, the "Pola" found a depth of 4,400 metres (2,406 fathoms), followed within a few miles further east by a depth of 4,080 metres (2,236 fathoms), which are the greatest depths recorded in the Mediterranean. They have received from the Austrian Hydrographical Board the name of Pola Deep. The great depression of the Mediterranean must thus be shifted considerably east from its former central position on the maps. Another deep area was explored between Candia and Alexandria—the depths attaining from 3,310 metres (1810 fathoms) some twenty miles south-east of Grandes Bay, and from 2,392 metres (1,208 fathoms) to 2,120 metres (1,322 fathoms) within a short distance from Alexandria; the maximum depth sounded being 3,068 metres (1,678 fathoms) in 28° 39′ 30″ north latitude, and 33° 19′ 54″ east longitude. The highest temperature was found during the first part of the voyage, at depths of 1 to 50 metres, the highest being 80.8° Fahrenheit at 1 metre; the lowest temperature, 52½°, was observed at the issue from the Adriatic Sea, at a depth of 760 metres. In explorations conducted some two years ago in the Central Mediterranean, it was observed that the density of the water and its saturation with salt increased with depth, and the same was noticed in the western part of this year's cruise. But in the Eastern Mediterranean the density of water varies but very little in the different strata, and it is higher on the whole than in the west. The transparency of the water is very great in the Eastern Mediterranean. Altogether the "Pola" made no fewer than 50 deep sea soundings, 27 of which touched depths of more than 1,000 metres.

— P. Blakiston, Son, & Co., Philadelphia, announce that they will soon publish "Physical Education," by Frederick Treves, F.R.C.P. The subject of physical education as a hygienic measure has recently attracted so much attention from school boards, the medical profession, and sanitarians generally, that it now ranks in importance with the various branches of study pursued in our public schools and colleges. To the average city man or woman of sedentary occupation physical exercise is of quite as much consequence as it is to school children and college students. It is, however, often taken up unwisely and to the lasting harm of those who in ignorance attempt methods that are unsuited to their physical condition. It has therefore been thought advisable to publish, from the advance sheets of "A Treatise on Hygiene," this paper by one of the best known medical writers of the day, that it might be within the reach of those who would not perhaps care to purchase the larger work in which it will be included.

— Houghton, Mifflin & Co. announce that Mrs. Olive Thorne Miller adds to her two excellent books about birds already published by this firm a third, to which she gives the title, "Little Brothers of the Air." It describes between twenty and thirty different birds, and for all lovers of birds, who are happily very numerous, this little book has special attractions. Professor Child has prepared the eighth part of his remarkable edition of "English and Scottish Popular Ballads." It was originally expected that the work would be complete with the eighth part, but Professor Child has been successful in discovering a good deal of material which he had hardly anticipated finding, so that at least one more part is necessary to complete the work. "The Satchel Guide for the Vacation Tourist in Europe" has been revised for 1892, and, as heretofore, holds the first rank among Guides for those who wish to cover only a part of Europe, and make a tour instead of a thorough continued study of many places.